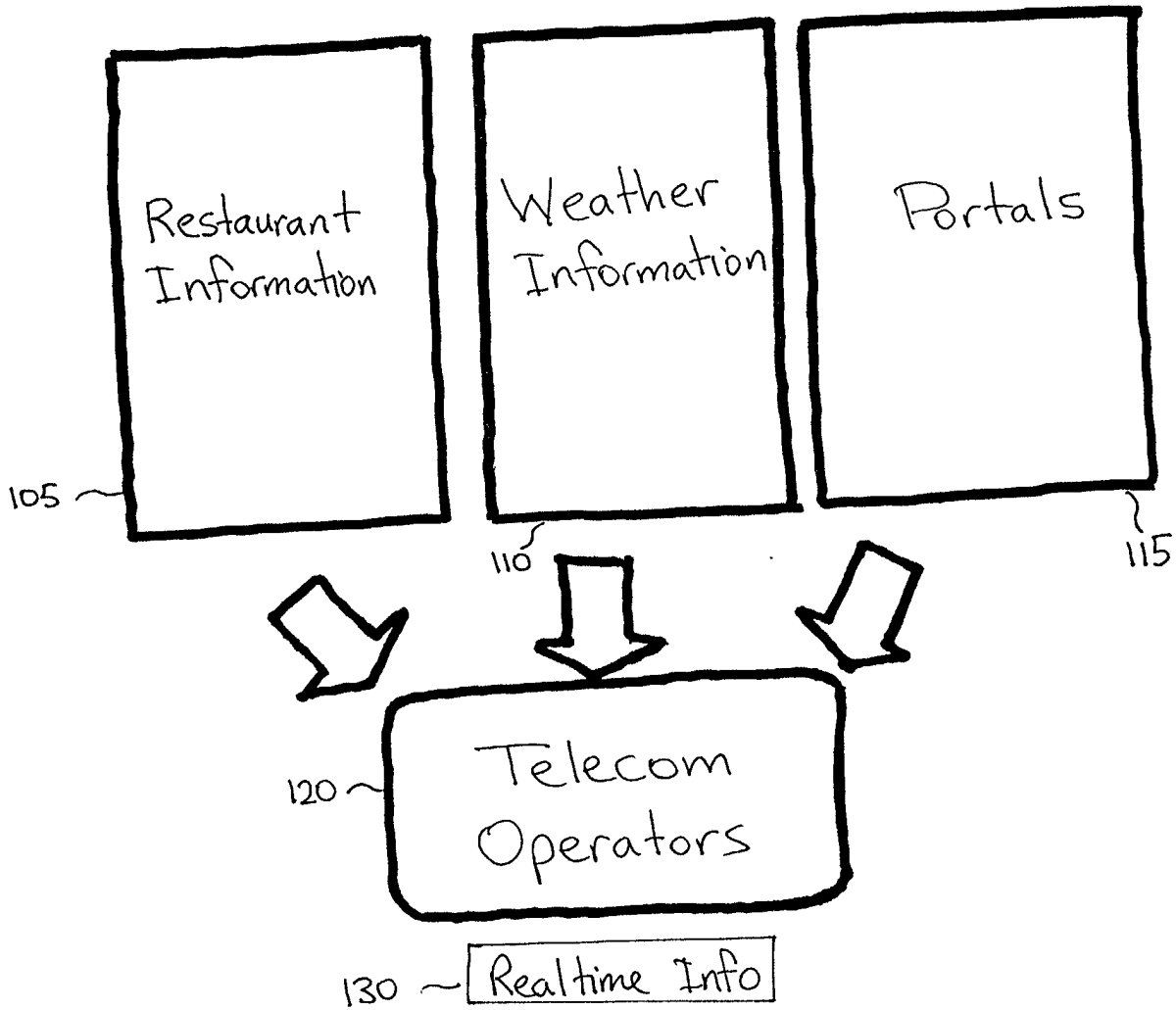
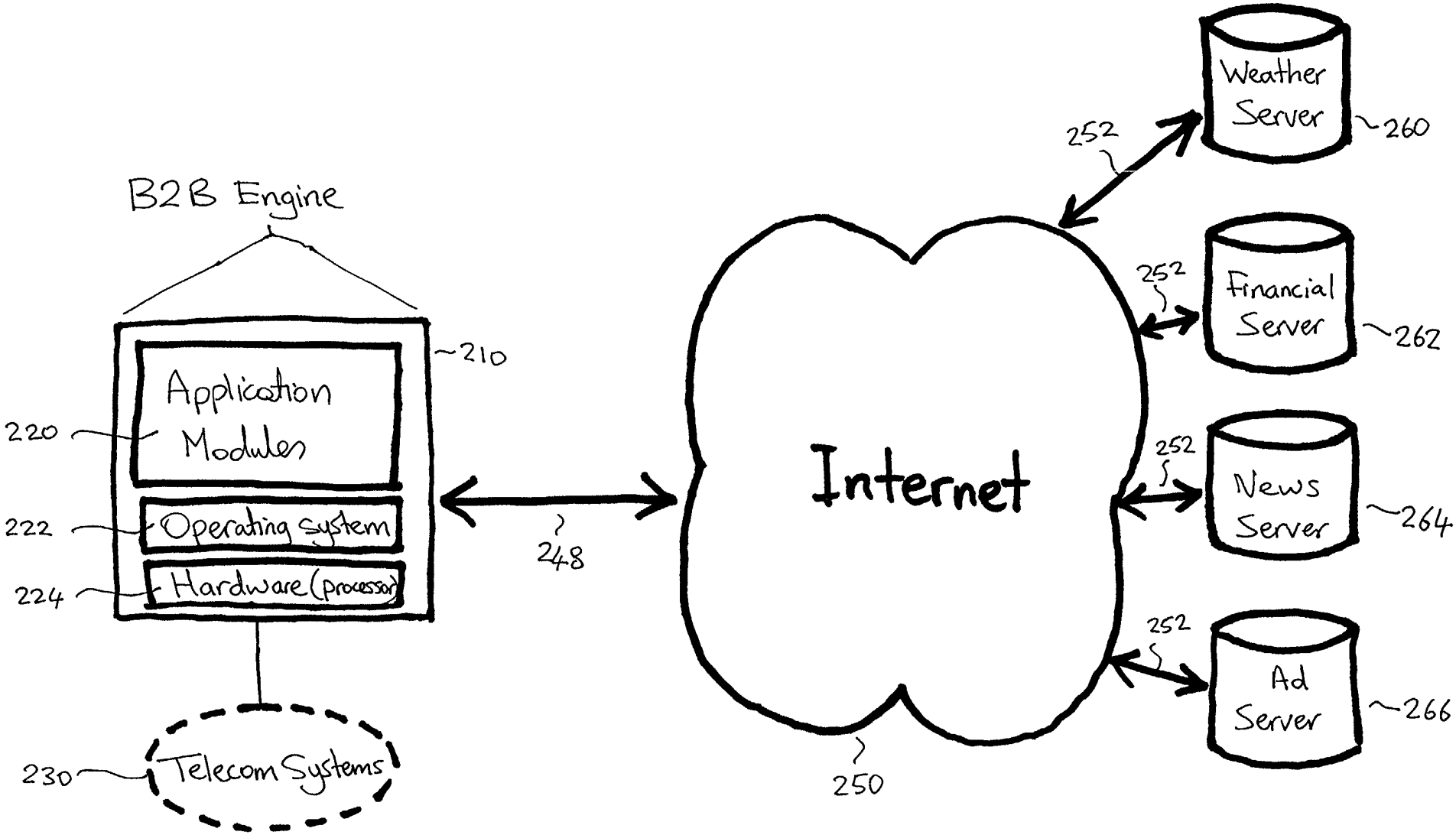
FIGURE 1


Restaurant Information
Weather Information
Portals
105
110
115
Telecom Operators
120
Realtime Info
130

F3807P-US2

FIGURE 2



T0807P3 - 26253208

FIGURE 3

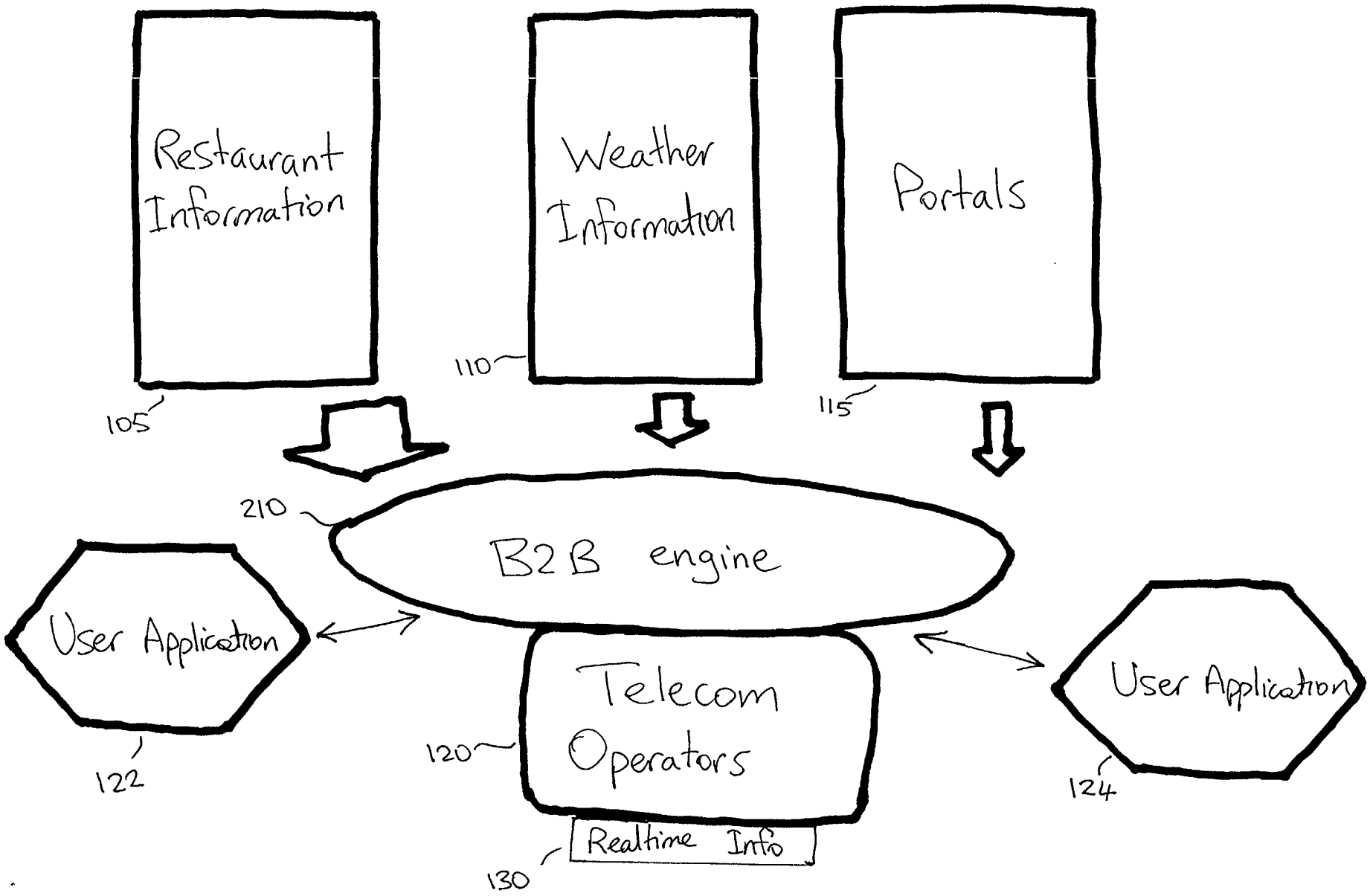


FIGURE 4

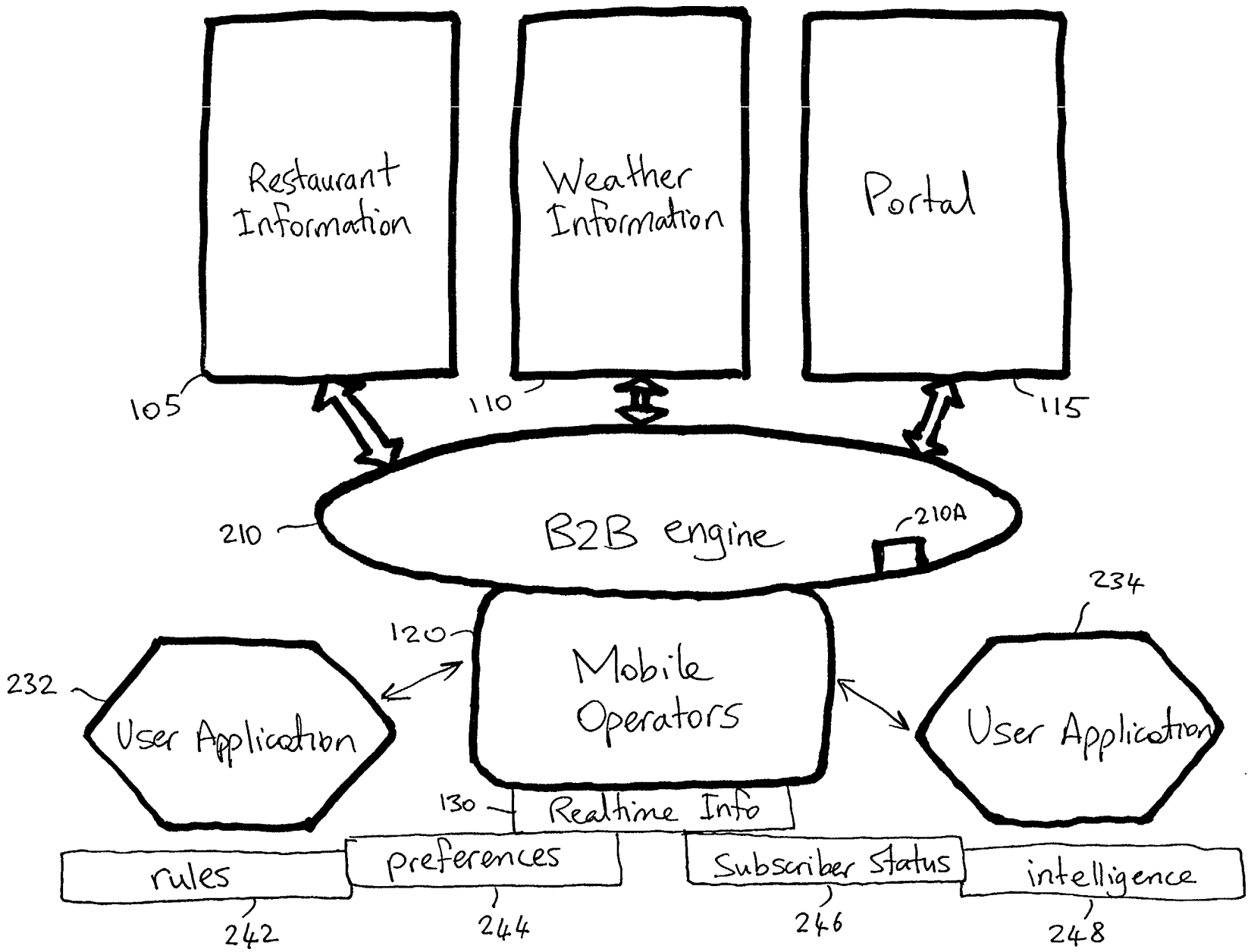

Restaurant Information
Weather Information
Portal
105
110
115
210
B2B engine
210A
120
Mobile Operators
234
232
User Application
User Application
130
Realtime Info
rules
preferences
Subscriber Status
intelligence
242
244
246
248

FIGURE 5

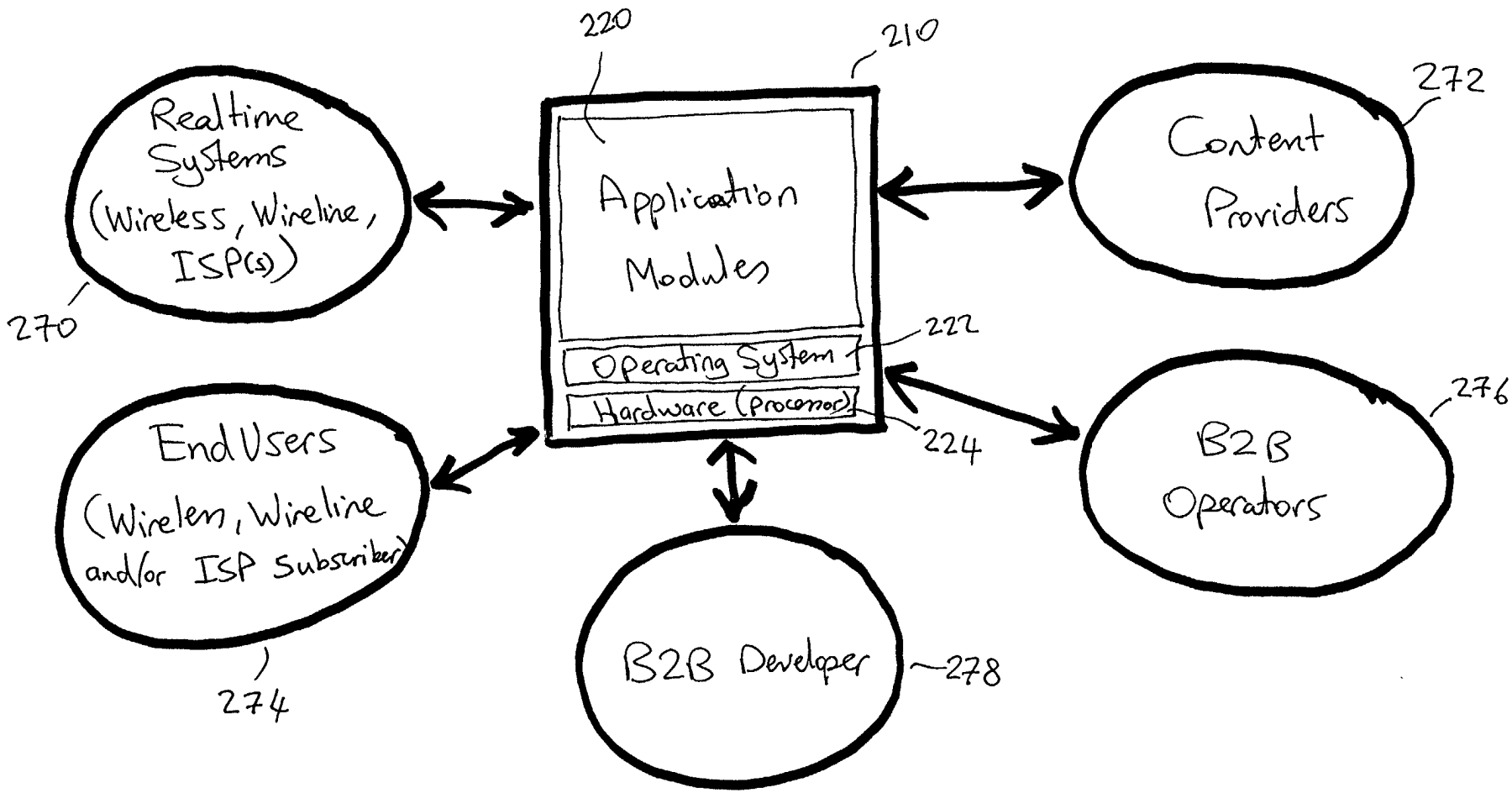
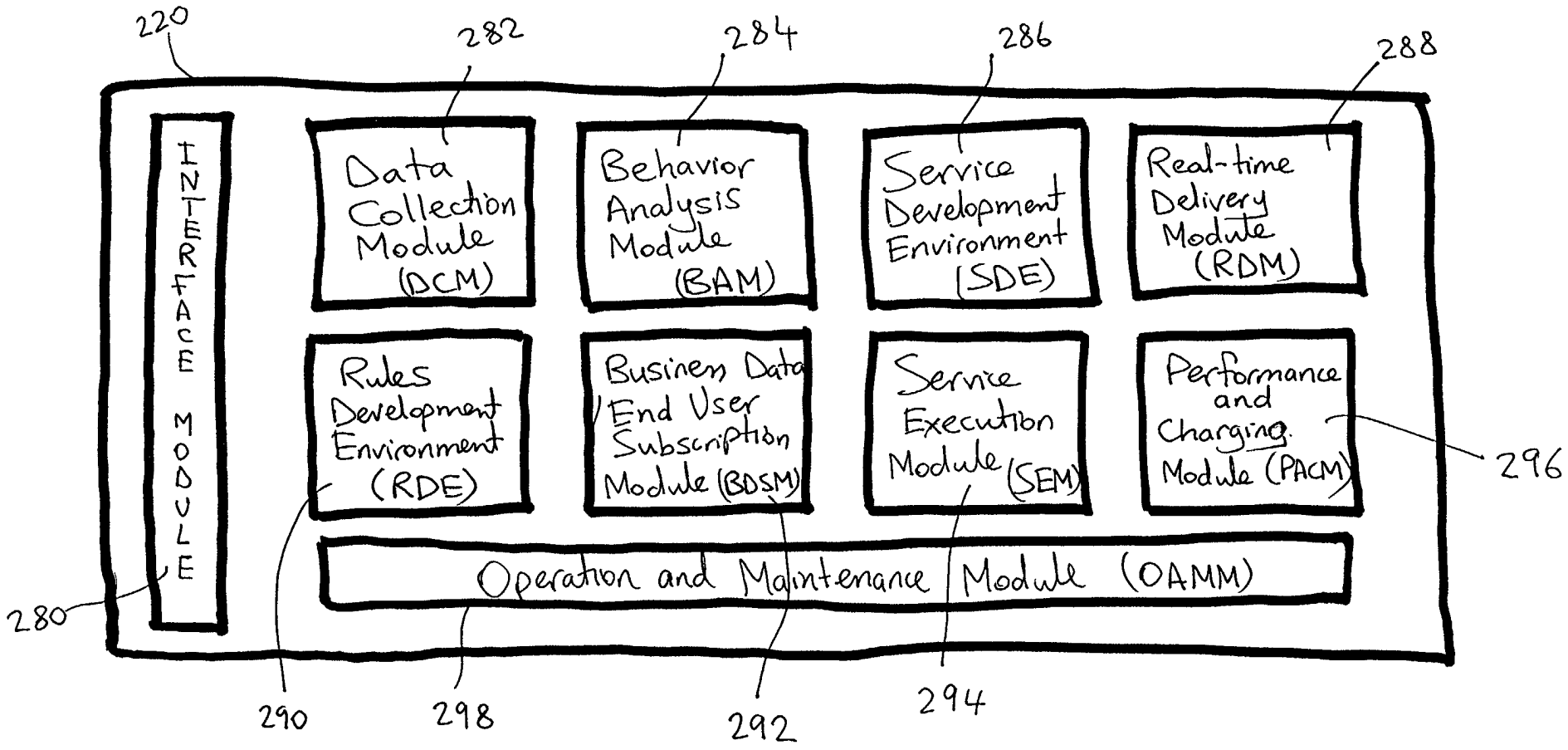

220
210
Realtime Systems (Wireless, Wireline, ISP(s))
270
Application Modules
Content Providers
272
222
Operating System
Hardware (Processor)
224
End Users (Wireless, Wireline and/or ISP Subscriber)
274
B2B Operators
276
B2B Developer
278

FIGURE 6


220
282
284
286
288
INTERFACE MODULE
Data Collection Module (DCM)
Behavior Analysis Module (BAM)
Service Development Environment (SDE)
Real-time Delivery Module (RDM)
Rules Development Environment (RDE)
Business Data / End User Subscription Module (BDSM)
Service Execution Module (SEM)
Performance and Charging Module (PACM)
296
Operation and Maintenance Module (OAMM)
280
290
298
292
294

T0S0T0" S6CS52S0

FIGURE 7

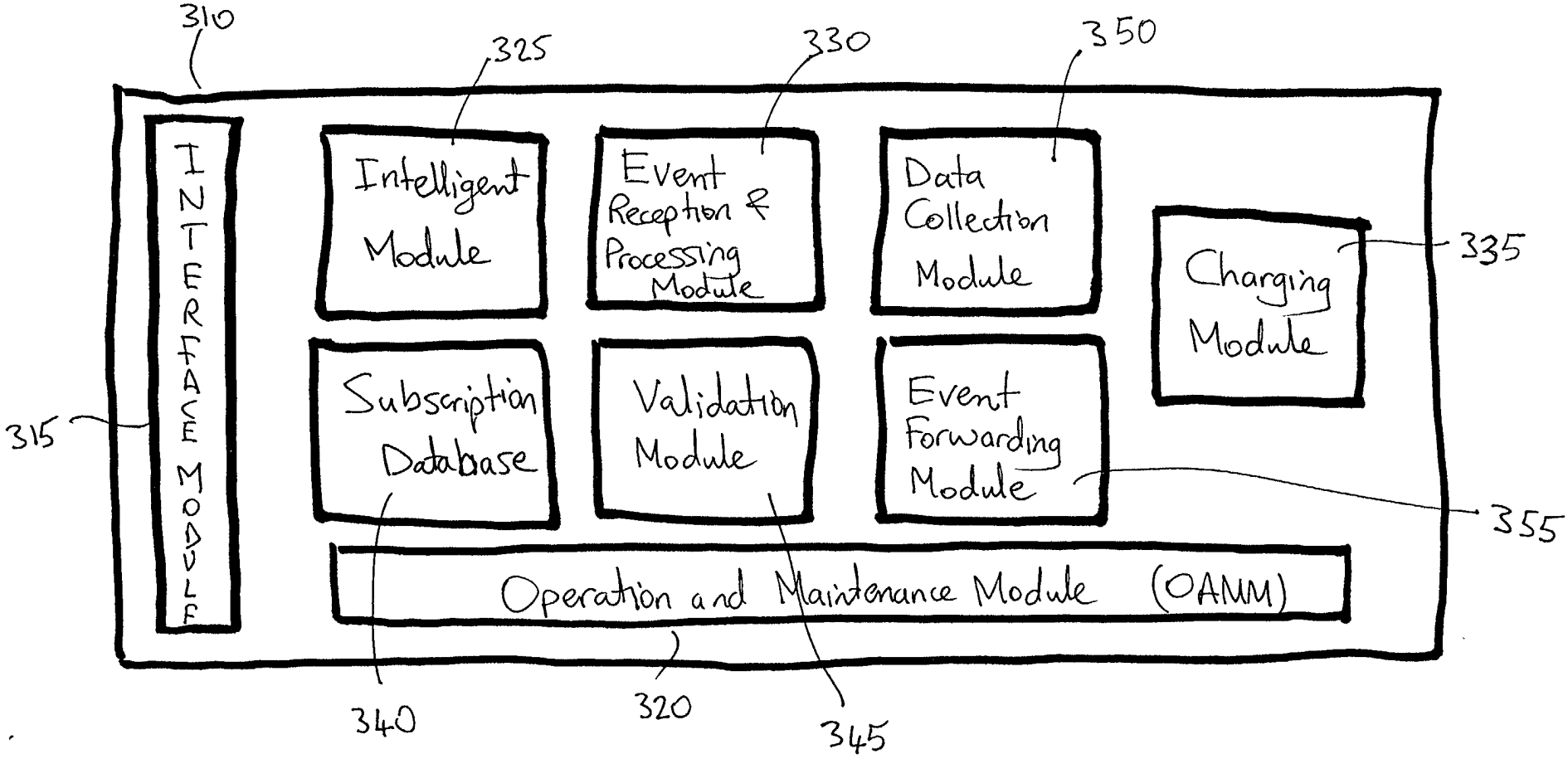


FIGURE 8

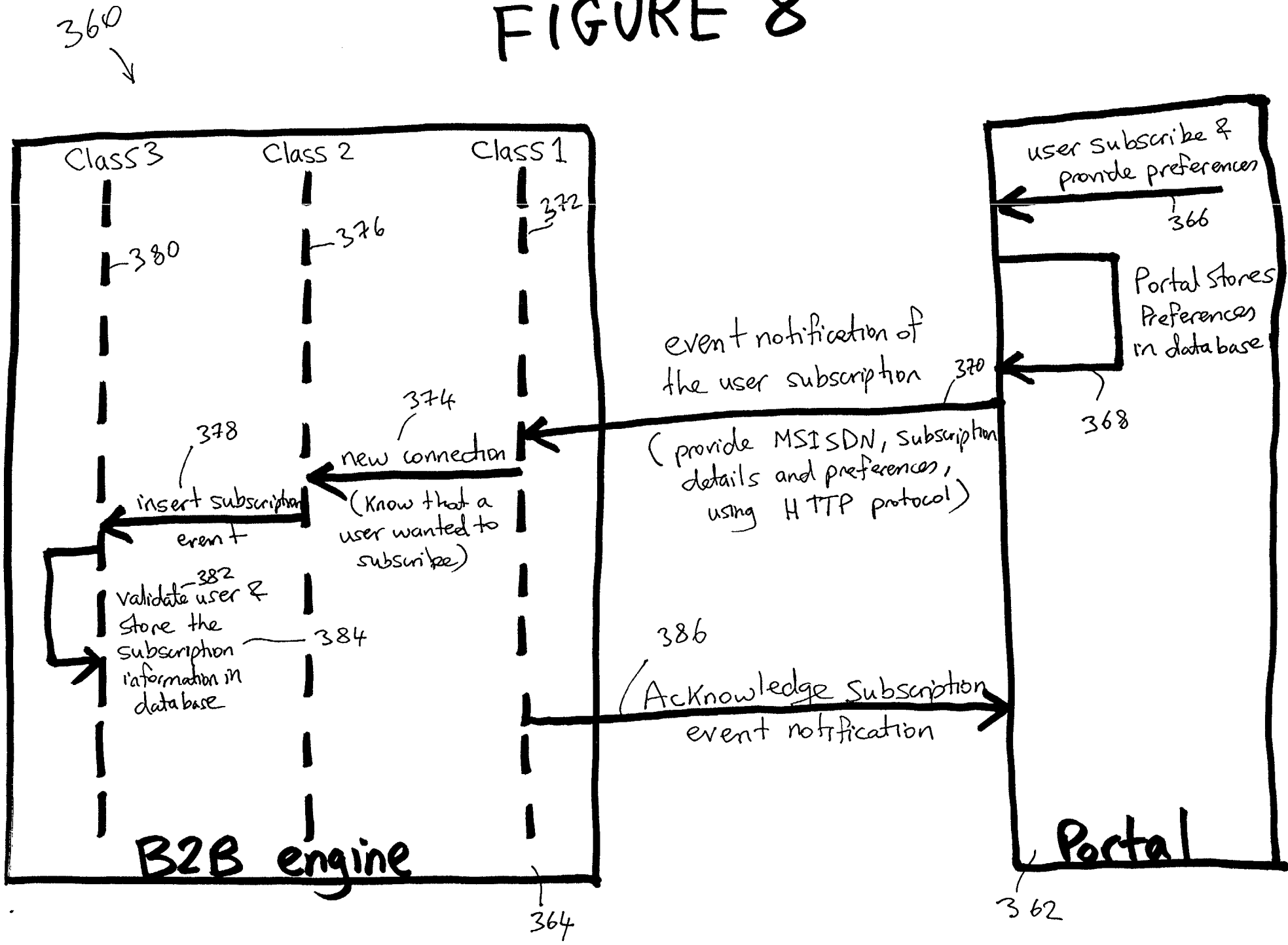

360
Class3
Class 2
Class 1
372
376
380
user subscribe & provide preferences
366
Portal stores Preferences in database
368
event notification of the user subscription
370
374
new connection
(Know that a user wanted to subscribe)
(provide MSISDN, subscription details and preferences, using HTTP protocol)
378
insert subscription event
382
validate user & store the subscription information in database
384
386
Acknowledge Subscription event notification
B2B engine
Portal
364
362

FIGURE 9

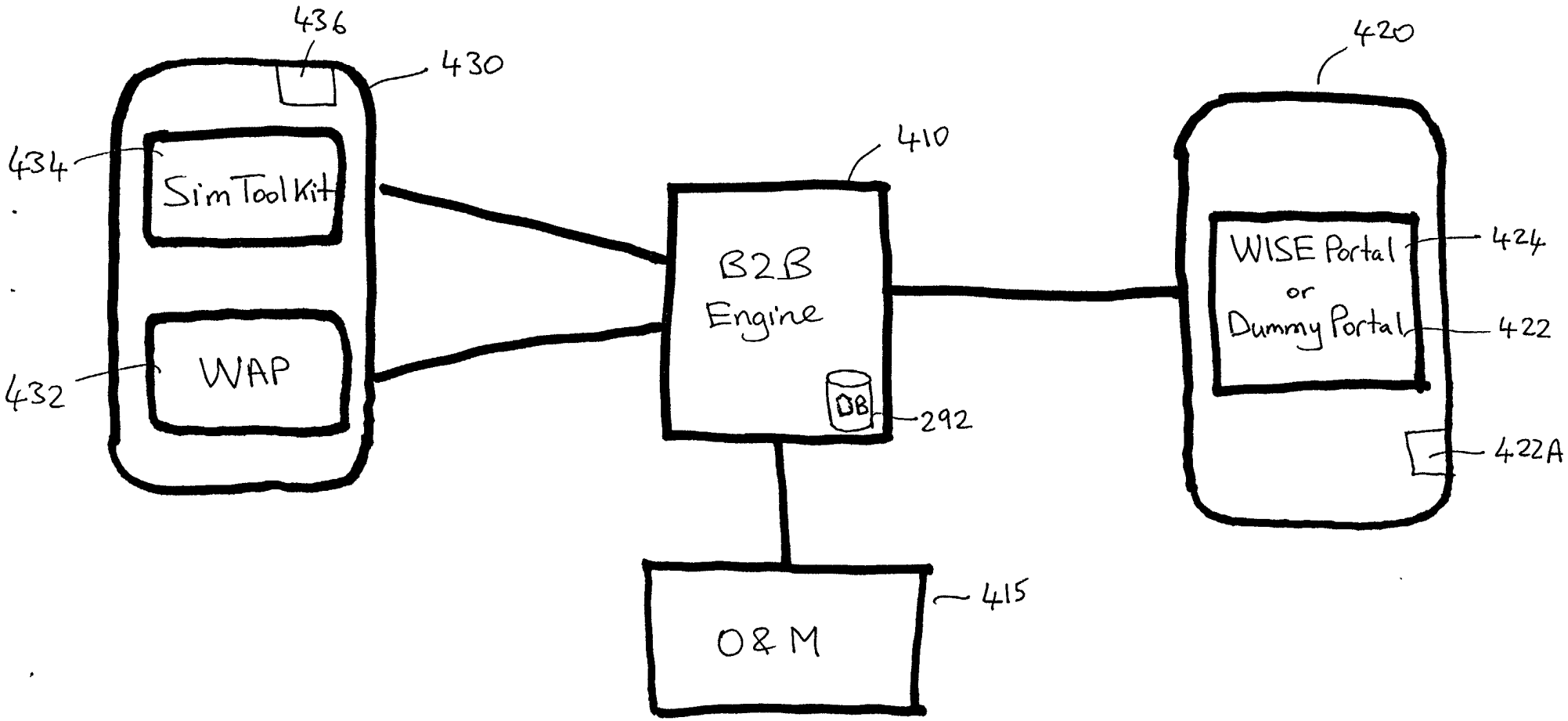

436
430
420
434
SimToolKit
410
B2B
Engine
WISE Portal
or
Dummy Portal
424
422
432
WAP
DB
292
422A
415
O&M

FIGURE 10

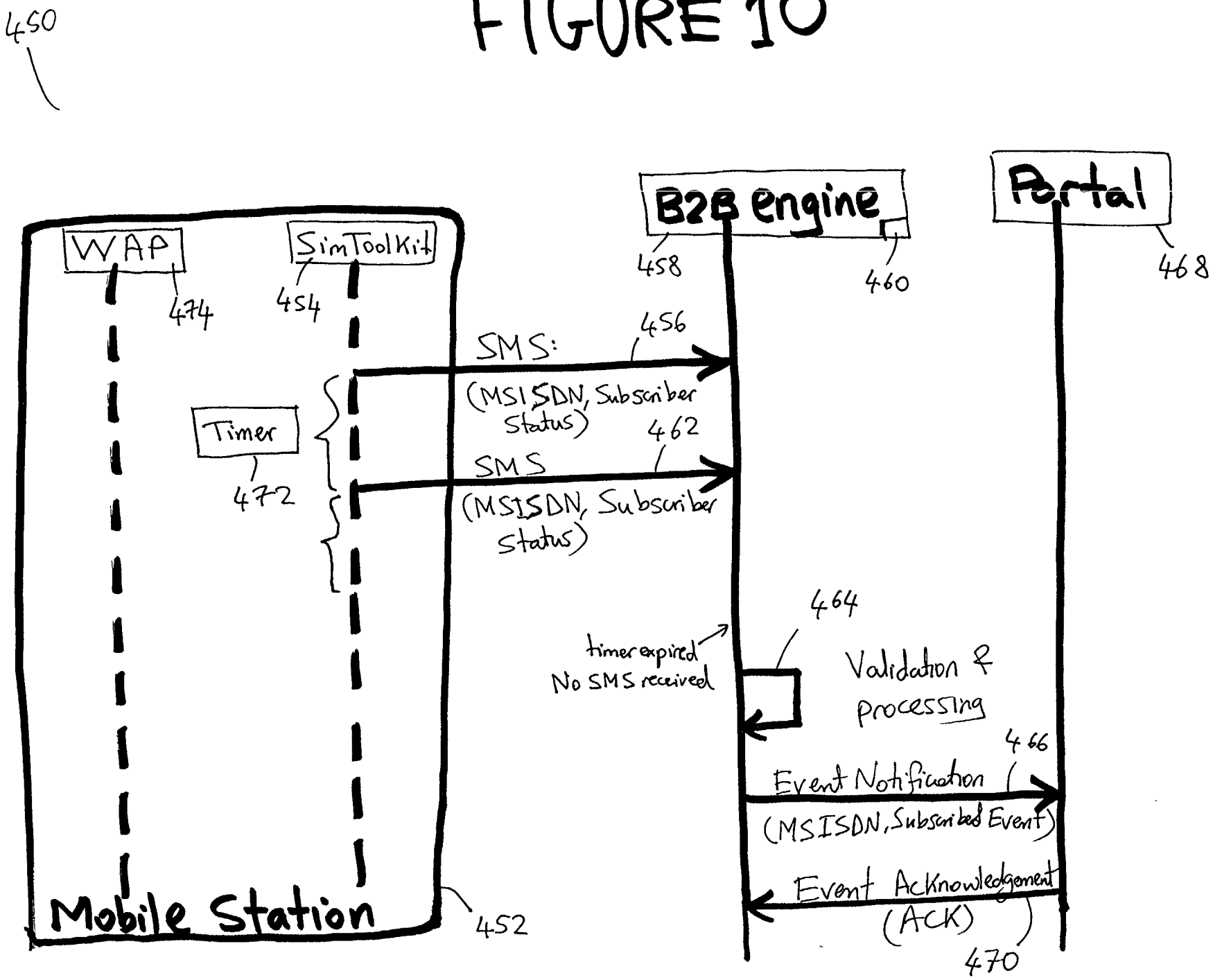

450
WAP
474
SimToolKit
454
Mobile Station
452
Timer
472
B2B engine
458
460
Portal
468
SMS:
456
(MSISDN, Subscriber Status)
SMS
462
(MSISDN, Subscriber Status)
timer expired
No SMS received
464
Validation & processing
Event Notification
466
(MSISDN, Subscribed Event)
Event Acknowledgement
(ACK)
470

FIGURE 11

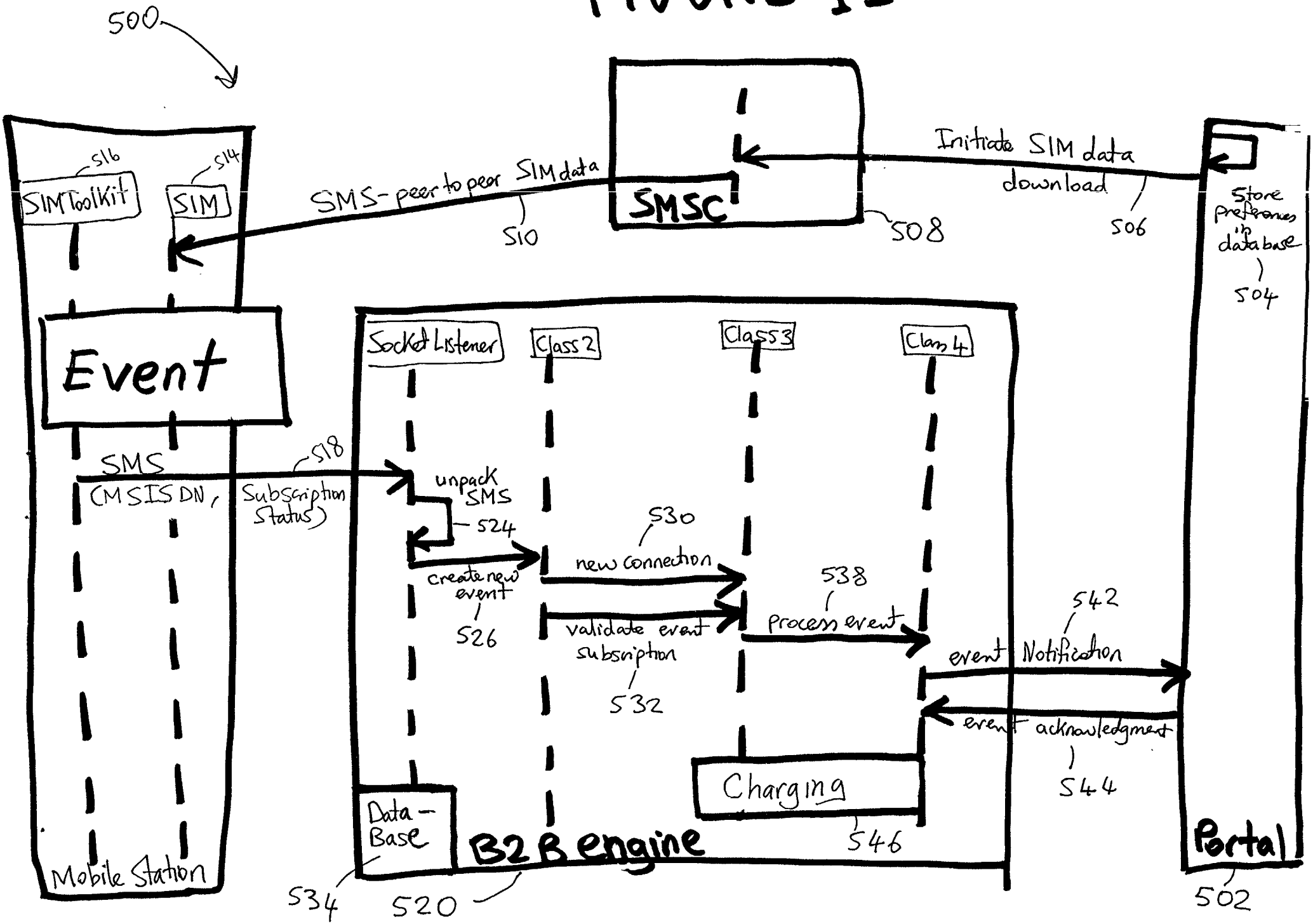

500
SIMToolKit
516
SIM
514
SMS- peer to peer SIM data
510
SMSC
508
Initiate SIM data download
506
Store preferences in database
504
Event
Socket Listener
Class 2
Class 3
Class 4
SMS
(MSISDN,
Subscription Status)
518
unpack SMS
524
create new event
526
new connection
530
validate event subscription
532
process event
538
event Notification
542
event acknowledgment
544
Charging
546
Data-Base
534
B2B engine
520
Mobile Station
Portal
502

FIGURE 12

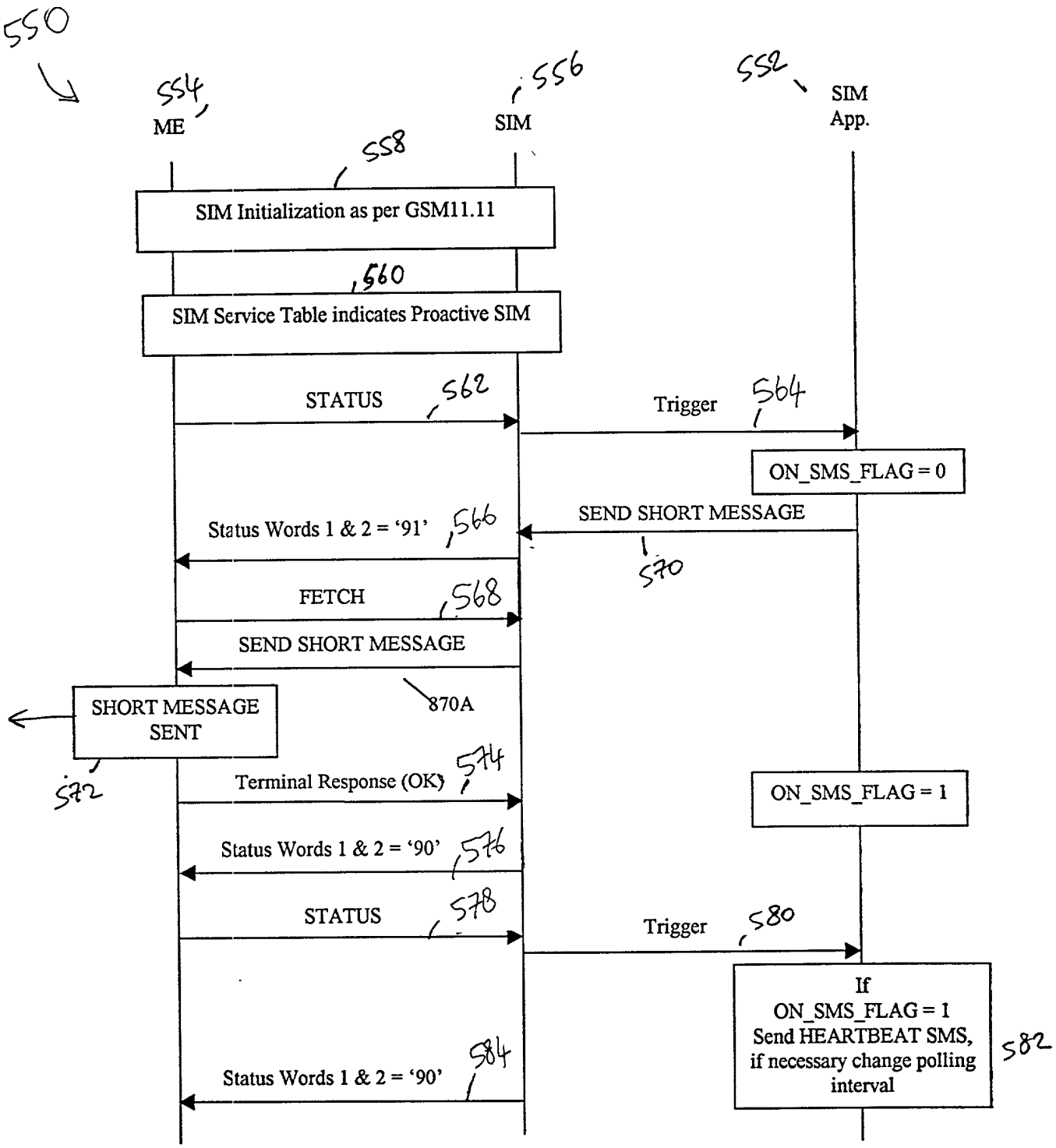

550
554
ME
556
SIM
552
SIM App.
558
SIM Initialization as per GSM11.11
560
SIM Service Table indicates Proactive SIM
STATUS
562
Trigger
564
ON_SMS_FLAG = 0
Status Words 1 & 2 = '91'
566
SEND SHORT MESSAGE
570
FETCH
568
SEND SHORT MESSAGE
870A
SHORT MESSAGE SENT
572
Terminal Response (OK)
574
ON_SMS_FLAG = 1
Status Words 1 & 2 = '90'
576
STATUS
578
Trigger
580
If ON_SMS_FLAG = 1 Send HEARTBEAT SMS, if necessary change polling interval
582
Status Words 1 & 2 = '90'
584

FIGURE 13

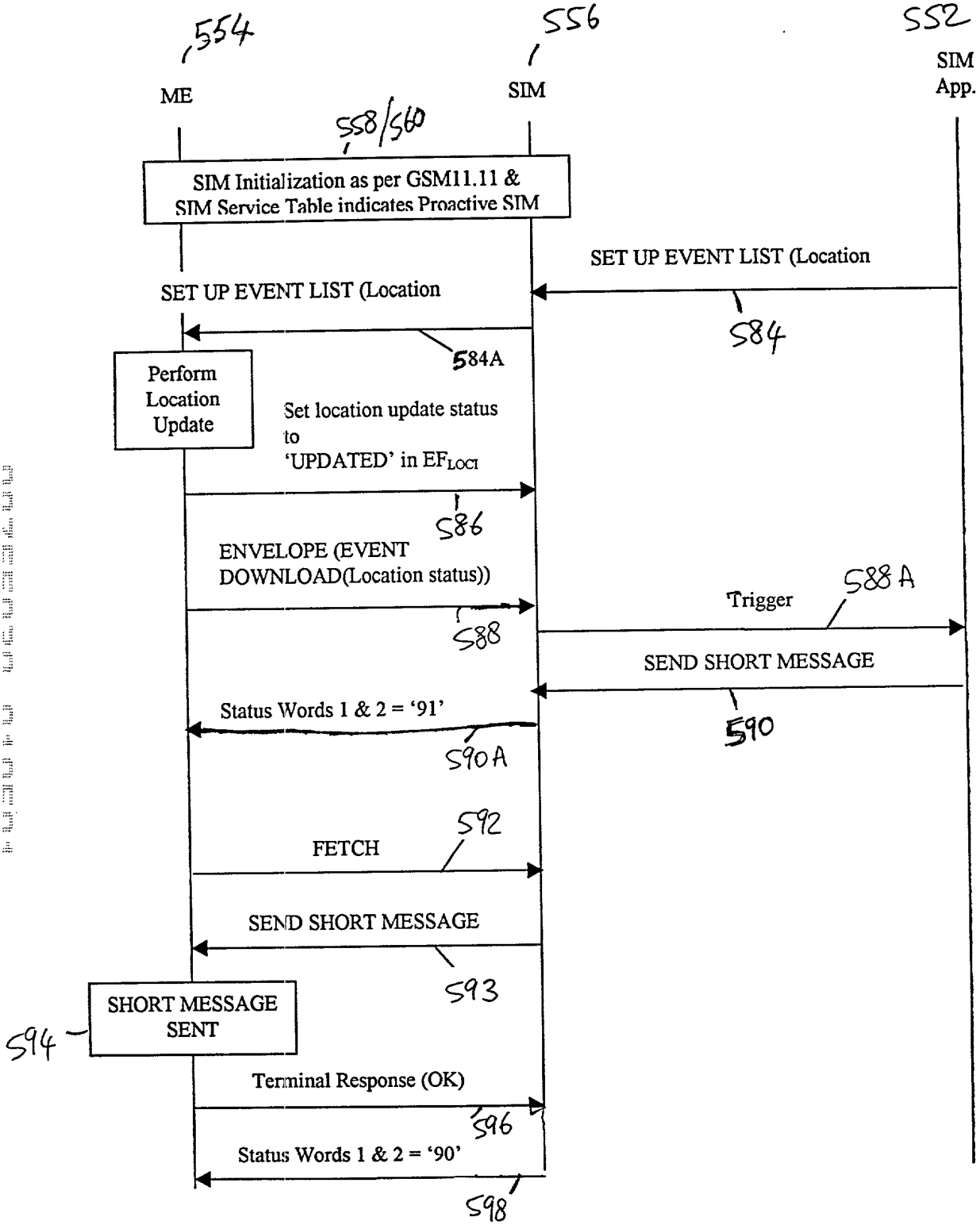

554
556
552
ME
SIM
SIM App.
558/560
SIM Initialization as per GSM11.11 & SIM Service Table indicates Proactive SIM
SET UP EVENT LIST (Location
SET UP EVENT LIST (Location
584
584A
Perform Location Update
Set location update status to 'UPDATED' in EF$_{LOCI}$
586
ENVELOPE (EVENT DOWNLOAD(Location status))
588
Trigger
588A
SEND SHORT MESSAGE
590
Status Words 1 & 2 = '91'
590A
FETCH
592
SEND SHORT MESSAGE
593
SHORT MESSAGE SENT
594
Terminal Response (OK)
596
Status Words 1 & 2 = '90'
598

FIGURE 14

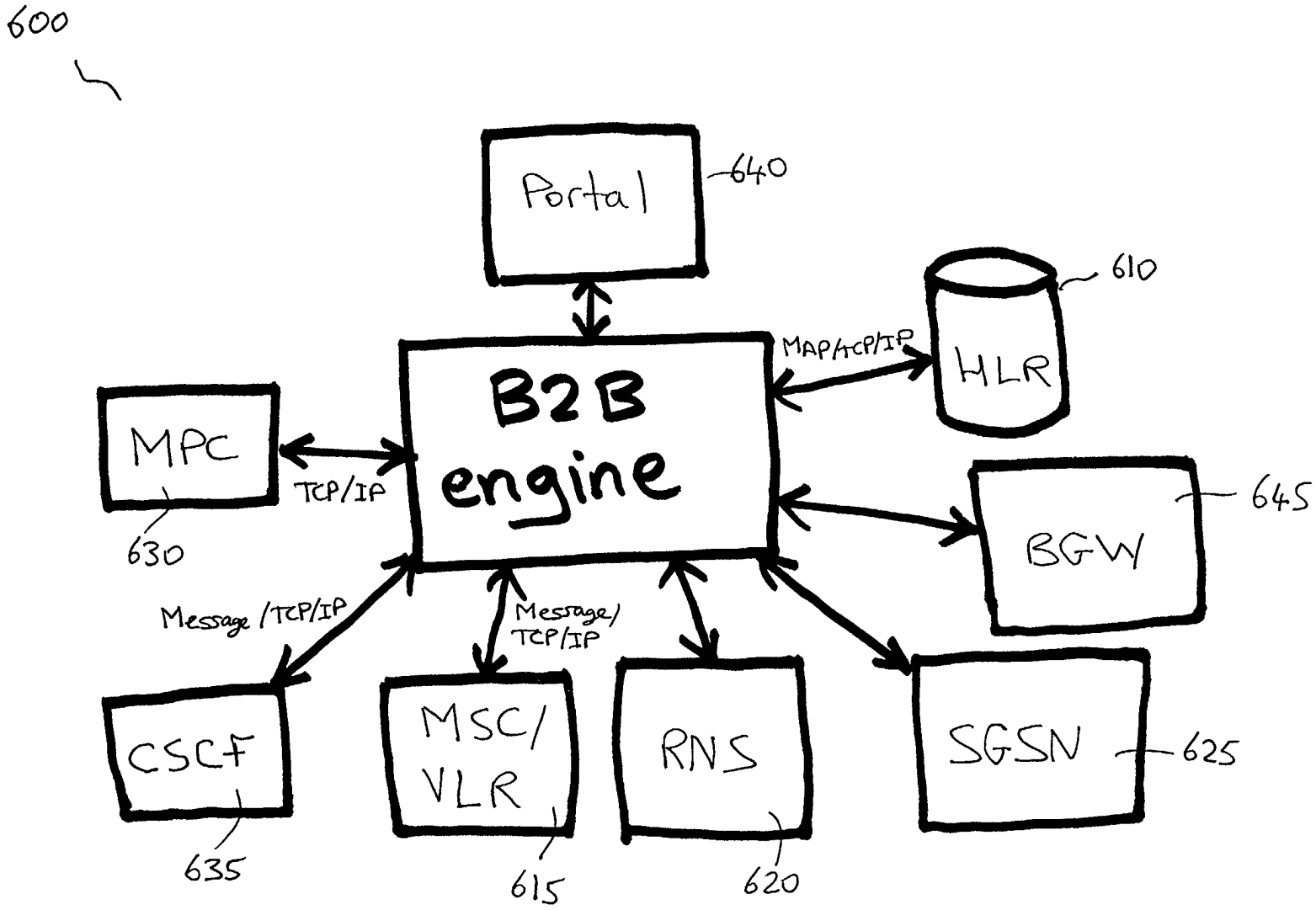

600
Portal
640
610
HLR
MAP/TCP/IP
B2B engine
MPC
TCP/IP
630
645
BGW
Message /TCP/IP
Message/ TCP/IP
CSCF
635
MSC/ VLR
615
RNS
620
SGSN
625

FIGURE 15

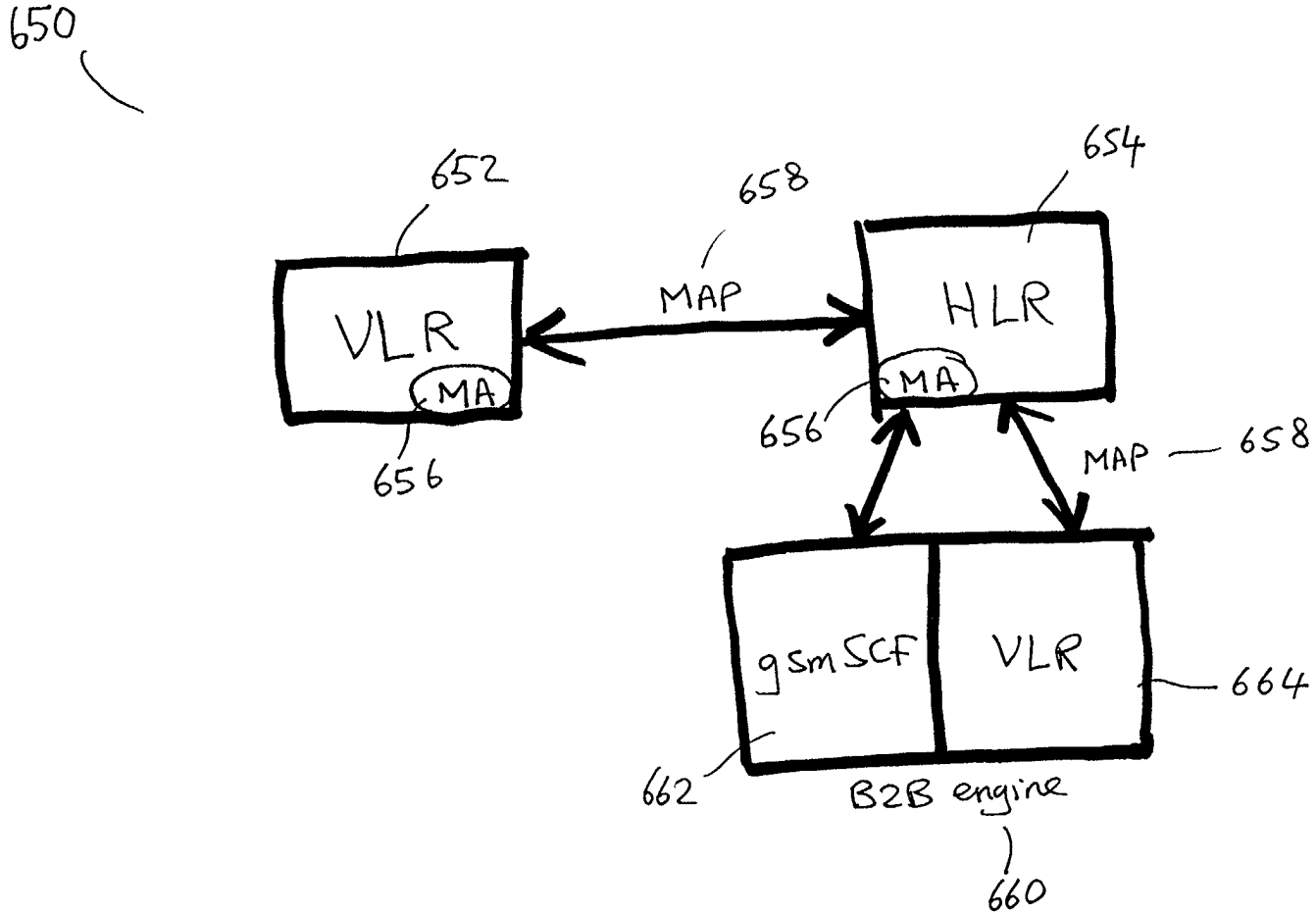

650
652
658
654
VLR
MAP
HLR
MA
MA
656
656
MAP
658
gsmSCF
VLR
664
662
B2B engine
660

FIGURE 16

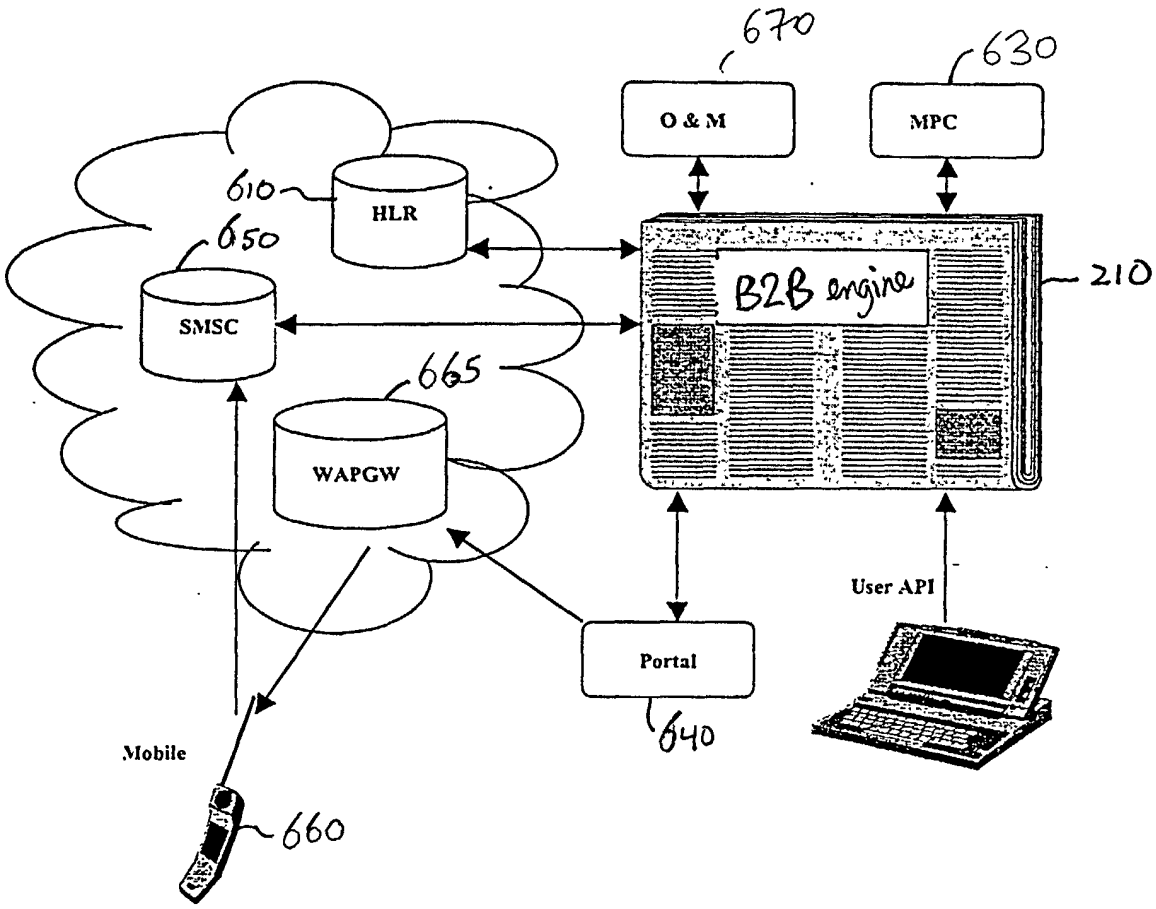

670
630
O & M
MPC
610
HLR
650
SMSC
B2B engine
210
665
WAPGW
User API
Portal
640
Mobile
660

FIGURE 17

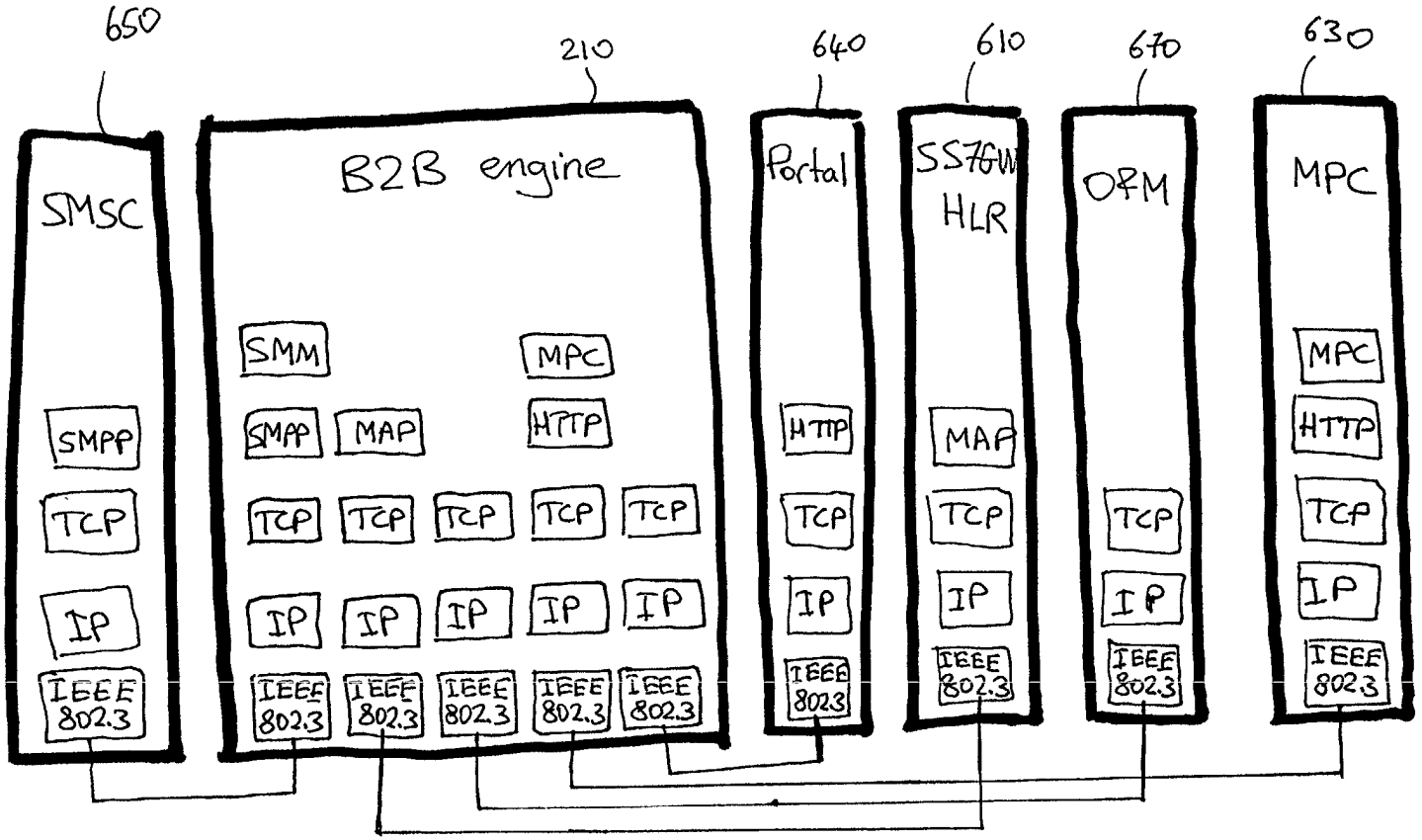
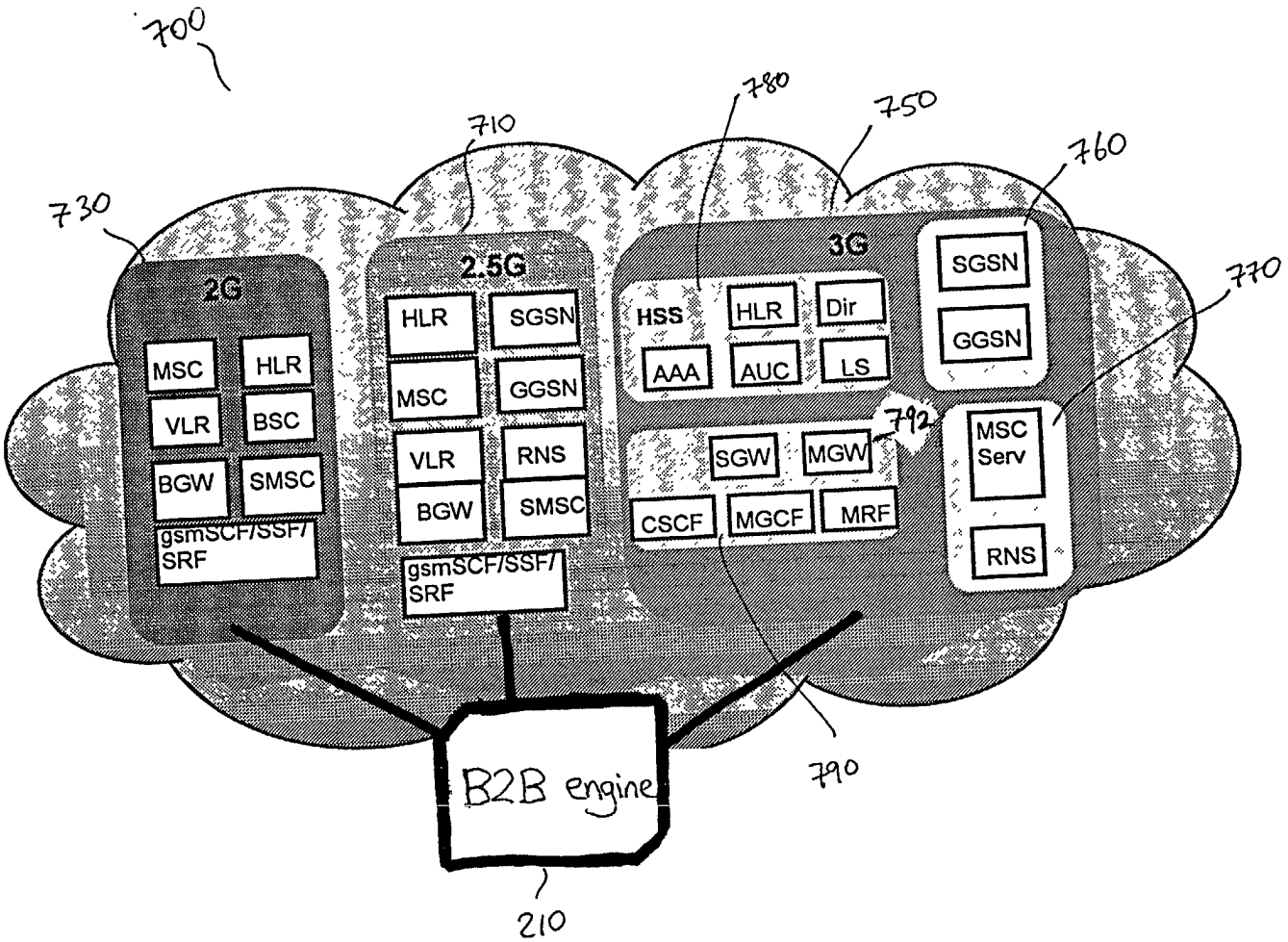

650
SMSC
SMPP
TCP
IP
IEEE 802.3
210
B2B engine
SMM
SMPP
MAP
MPC
HTTP
TCP
IP
IEEE 802.3
640
Portal
HTTP
TCP
IP
IEEE 802.3
610
SS7GW
HLR
MAP
TCP
IP
IEEE 802.3
670
OAM
TCP
IP
IEEE 802.3
630
MPC
MPC
HTTP
TCP
IP
IEEE 802.3

FIGURE 18


700
710
730
780
750
760
770
2G
MSC
HLR
VLR
BSC
BGW
SMSC
gsmSCF/SSF/
SRF
2.5G
HLR
SGSN
MSC
GGSN
VLR
RNS
BGW
SMSC
gsmSCF/SSF/
SRF
3G
HSS
HLR
Dir
AAA
AUC
LS
SGW
MGW
792
CSCF
MGCF
MRF
SGSN
GGSN
MSC
Serv
RNS
B2B engine
790
210